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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/7858,116	05/19/97	MIZUGUCHI	GD/10-00001

CURTIS B HAMRE
MERCHANT GOULD SMITH EDELL WELTER
AND SCHMIDT
3100 NORWEST CENTER 90 SOUTH SEVENTH ST
MINNEAPOLIS MN 55402

1831/0317

EXAMINER
GRIFFIN, S

ART UNIT	PAPER NUMBER
1751	

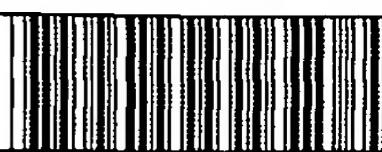
DATE MAILED: 03/17/98

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No. 08/858,116	Applicant(s) Mizusugi et al.
Examiner Steven P. Griffin	Group Art Unit 1731



Responsive to communication(s) filed on May 19, 1997

This action is FINAL.

Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

Claim(s) 5-8 and 10 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

Claim(s) _____ is/are allowed.

Claim(s) 5-8 and 10 is/are rejected.

Claim(s) _____ is/are objected to.

Claims _____ are subject to restriction or election requirement.

Application Papers

See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

The drawing(s) filed on _____ is/are objected to by the Examiner.

The proposed drawing correction, filed on _____ is approved disapproved.

The specification is objected to by the Examiner.

The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

All Some* None of the CERTIFIED copies of the priority documents have been received.

received in Application No. (Series Code/Serial Number) 08/204,536.

received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

Notice of References Cited, PTO-892

Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

Interview Summary, PTO-413

Notice of Draftsperson's Patent Drawing Review, PTO-948

Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 10 and 5-8 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 10, line 18, the recitation that the second area of the sheet of glass is shaped "complementary to the first area" is not provided for in the specification as originally filed as the specification as originally filed fails to provide for the shaping to be "complementary to the first area" as is now recited. If applicant believes that basis is provided for this recitation it is requested that the specific page and line number where basis in the original specification can be found be identified.

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3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 5-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5, line 4, "said shaping mold" lacks antecedent basis. Claim 5, line 8, it is believed that "then" should be deleted to clarify the recitation and prevent any question of a lack of antecedent basis problem. Claim 5, line 11, --said second-- should be inserted before "vacuum" to clarify which vacuum is being referred to. Claim 5, line 13, --second-- should be inserted before "vacuum" to also clarify which vacuum is being referred to.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior

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art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 10 and 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seymour 4,229,200 in view of McMaster 4,609,391.

Regarding claims 10 and 5, Seymour essentially discloses the claimed method; see col. 11, line 57 to col. 12, line 31; note that the first vacuum developed in the element 40 (first suction chamber) of Seymour occurs prior to the application of a vacuum in curved shaping blocks 120 (second suction chambers) of Seymour which are located on opposite sides of the first suction chamber 40. Seymour fails to place the glass sheet on a ring

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mold to place the sheet under the suction mold. Seymour discloses a tempering station 12 for tempering the glass after bending, Seymour fails to discuss the particulars of the tempering steps. McMaster discloses a method for bending glass plates wherein a heated glass sheet (G) is placed onto a ring mold (42) and then the ring mold with the glass plate is moved beneath a suction mold (5) wherein the mold attracts the glass plate by suction and bends the glass plate, after bending McMaster further discloses that it is conventional to release the bent glass sheet from the suction mold onto a ring (56) for movement of the glass to quench station (24) to temper the glass sheet. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a ring mold for transferring the heated glass sheet under the suction mold as in McMaster in order to provide for an efficient means for moving the heated glass sheet under the bending suction mold and to further use a quench ring as in McMaster in the method of Seymour in order to transfer the bent glass sheet to the quench station for tempering the bent glass sheet. Regarding claim 6, the sheet of Seymour is bent from the central region of the sheet to the side areas of the sheet. Regarding claim 7, Seymour discloses using a stretchable fabric covering such as a knit fiber glass fabric on the shaping surfaces to protect surface of the glass

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sheets (see col. 5, lines 50-55). Regarding claim 8, Seymour clearly shows the glass sheet as being planar prior to attraction (see Figs. 16-17).

7. Claims 10 and 5-8 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Seymour in view of Kuster et al. 4,859,225.

Regarding claims 10 and 5, Seymour is applied as above. Seymour fails to place the glass sheet on a ring mold to place the sheet under the suction mold. Seymour discloses a tempering station 12 for tempering the glass after bending, Seymour fails to discuss the particulars of the tempering steps. Kuster '225 discloses a method for bending glass plates wherein a heated glass sheet (9) is placed onto a ring mold (33) and then the ring mold with the glass plate is moved beneath a suction mold (5) wherein the mold attracts the glass plate by suction and bends the glass plate, after bending Kuster '225 further discloses that it is conventional to release the bent glass sheet from the suction mold onto a ring (support frame 48) for movement of the glass to tempering station (5) to temper the glass sheet. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a ring mold for transferring the heated glass sheet under the suction mold as in Kuster '225 in order to provide for an efficient means for moving

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the heated glass sheet under the bending suction mold and to further use a support frame/ring as in Kuster '225 in the method of Seymour in order to transfer the bent glass sheet to the tempering station for tempering the bent glass sheet. Regarding claim 6, the sheet of Seymour is bent from the central region of the sheet to the side areas of the sheet. Regarding claim 7, Seymour discloses using a stretchable fabric covering such as a knit fiber glass fabric on the shaping surfaces to protect surface of the glass sheets (see col. 5, lines 50-55). Regarding claim 8, Seymour clearly shows the glass sheet as being planar prior to attraction (see Figs. 16-17).

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven P. Griffin whose telephone number is (703) 308-1164. The examiner can normally be reached on Monday-Thursday from 6:30 AM-4:00 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stan Silverman, can be reached on (703) 308-3837. The fax phone numbers for this Group are (703) 305-7115, 7718, or 7719.

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Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0661.

Steven P. Griffin
STEVEN P. GRIFFIN
PRIMARY EXAMINER
ART UNIT 1303-1731
3-11-98

SPG
March 11, 1998